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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,244	08/24/2006	Denys Sournac	0573-1011-1	8562
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER MERENE, JAN CHRISTOP L	
			<small>09/03/2008</small> ART UNIT 3733	PAPER NUMBER
			MAIL DATE 09/03/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/587,244

**Applicant(s)**

SOURNAC ET AL.

**Examiner**

JAN CHRISTOPHER MERENE

**Art Unit**

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 7/26/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This is the initial Office action based on the 10/587,244 application filed on August 24, 2006, which is a 371 of PCT/FR05/00173 filed on January 27, 2005, which claims priority to US Provisional No. 60/544,415 filed on March 19, 2004 and also claims Foreign Priority to FR0400744.

#### ***Information Disclosure Statement***

1. The information disclosure statement filed July 26, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

#### ***Specification***

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). "Anchoring device" lacks preceding antecedent basis. Regarding "bone anchoring elements," it is unclear as to how many anchoring elements there are or if the applicant is reciting the same or a different anchoring element. Based on the specification, the examiner assumes there to be at least two bone anchoring elements, one in which there is a "base" and one considered the "connecting part." The examiner would like to remind the applicant that parenthetical limitations in the claim have no bearing on the claim.
5. Claim 5 recites the limitation "intermediate part" in line 6. There is insufficient antecedent basis for this limitation in the claim.
6. Regarding Claims 7-8, the claims in general is very unclear and indefinite. In particular with claim 7, it is unclear as to which anchoring element the applicant is referring to. Also the terms "part" and "portions of a part" render the claim indefinite. It appears the applicant is claiming a "part" or portion of the part itself. It is unclear as to what the applicant is exactly claiming. The examiner will treat claims 7-8 with art as best understood.

7. Claim 14 recites the limitation "intermediate part" in line 2. There is insufficient antecedent basis for this limitation in the claim.
8. Although the examiner has not pointed out each and every 112 issue in the claims, the examiner respectfully requests the applicant's help in correcting any 112 issues. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

### ***Drawings***

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "intermediate part" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

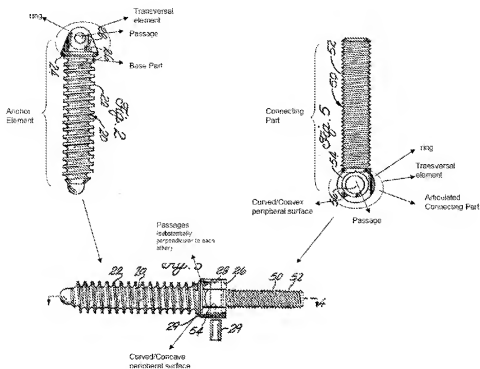
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1-2, 3, 9-11** are rejected under 35 U.S.C. 102(b) as being anticipated by Howland US 5,545,166.

Regarding **Claim 1**, Howland discloses a vertebral osteosynthesis device (see Col 3 lines 4-14 and see Figs below), comprising bone anchoring elements, intended to be connected to said anchoring elements and to be fixed to the vertebrae by means thereof, and connection means (#12) of rod (#16) to said anchoring elements, at least one of said anchoring elements being of the "polyaxial" type comprising an articulated connecting part with respect to the base part, said connecting part and said base part each comprise a transversal passage and a rigid transversal part which direction is substantially perpendicular to the direction of said passage, said rigid transversal part of the connecting part or of the base part being inserted in the transversal passage of the

base part or of the connecting part, and vice versa, in such a way that these rigid transversal elements are pivotable in these passages (see Col 3 lines 4-14 and see Figs below).



Regarding **Claim 2**, Howland discloses characterized in that said transversal rigid transversal element of the connecting part or of the base part are made by providing a ring on the connecting part and a ring on the base part the two rings of the connecting part and the base part being inserted into each other similarly to links in a chain (see Col 3 lines 4-14 and see Figs above).

Regarding **Claims 3, 11** Howland discloses that each rigid transversal element comprises a rounded contact surface with the other rigid transversal element, the radius of curvature of said contact surface being greater than the radius of the cross-

section of the other rigid transversal element (see Col 3 lines 4-14 and see Figs above, where the rounded surface of the transversal element of the connecting part contacts the rounded surface of the transversal element of the base part).

Regarding **Claims 7-8**, Howland discloses a part (#29) with an elastically deformable structure (see Col 3 lines 10-11, where #29 is press fit within #28, where it is inherent that #28 is rigid in structure and a substantial amount of force is applied to allow it to be press fitted within #28), which enables mobility of the connecting part (see Col 3 lines 4-13) and the connecting part has a part with an elastically deformable structure (see Col 5 lines 15-24), wherein the two parts support each other in the assembly position.

Regarding **Claims 9-10**, Howland discloses the connecting part comprises a curved bearing surface, suitable for resting against a corresponding curved bearing surface of said base part and sliding against said surface during movements of said connecting part with respect to said base part, wherein the connecting part comprises a convex peripheral surface, in the form of a spherical cap, and said base part comprises a corresponding concave peripheral surface (see fig above)

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. **Claims 4, 6, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Littmann 3,014,683.

Howland discloses the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

However, Littmann discloses the use of pivotable transversal elements which contain a plurality of intermediate members (#10, #14 as seen in Fig 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howland to include an intermediate part as shown in Littman because inserting an intermediate part between two transversal elements can aid in adjusting the length between the transversal elements (as seen in Fig 1, 3 and see Col 1 lines 1-12), wherein the intermediate part (either #14 or #10) is to be retained between both transversal elements by means of the shape of the rigid transversal elements, wherein the intermediate part has rounded contact surfaces to contact the transversal elements (see Fig 1, 3).

16. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 and Littmann 3,014,683, as applied to claim 4 above, in further view of Ganem US 6,290,703.

Howland and Littmann disclose the claimed invention as discussed above where it is obvious that the transversal elements are made from a hard material but does not specifically disclose the transversal elements having a coating.

Ganem teaches that application of a coating helps to reduce friction against bearing/articulating surfaces (see Col 3 lines 1-5, Col 5 lines 15-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transversal elements of Howland to include a coating

as taught by Ganem because the coating would help reduce friction between the transversal elements (see Col 3 lines 1-5, Col 5 lines 15-20).

17. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Ganem US 6,290,703.

Howland discloses the claimed invention as discussed above where it is obvious that the transversal elements are made from a hard material but does not specifically disclose the transversal elements having a coating.

Ganem teaches that application of a coating helps to reduce friction against bearing/articulating surfaces (see Col 3 lines 1-5, Col 5 lines 15-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transversal elements of Howland to include a coating as taught by Ganem because the coating would help reduce friction between the transversal elements (see Col 3 lines 1-5, Col 5 lines 15-20).

18. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 and Ganem US 6,290,703, as applied to claim 5 above, in further view of Littmann 3,014,683.

Howland and Ganem disclose the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

However, Littmann discloses the use of pivotable transversal elements which contain a plurality of intermediate members (#10, #14 as seen in Fig 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howland and Ganem to include an intermediate part as shown in Littman because inserting an intermediate part between two transversal elements can aid in adjusting the length between the transversal elements (as seen in Fig 1, 3 and see Col 1 lines 1-12), wherein the intermediate part (either #14 or #10) is to be retained between both transversal elements by means of the shape of the rigid transversal elements, wherein the intermediate part has rounded contact surfaces to contact the transversal elements (see Fig 1, 3).

### ***Conclusion***

The prior art made of record and relied upon is considered pertinent to the applicant's disclosure. See PTO-892 for art cited of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAN CHRISTOPHER MERENE whose telephone number is (571)270-5032. The examiner can normally be reached on 8 am - 6pm Mon-Thurs, alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jan Christopher Merene/  
Examiner, Art Unit 3733

/Eduardo C. Robert/  
Supervisory Patent Examiner, Art Unit 3733